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Arizona Corporation Commission

DOCKETED

LAGOON ESTATES WATER COMPANY'S REQUIRED ANSWERS TO QUESTIONS ADDRESSED MAY 18 2010

PROCEDURAL ORDER DATE APRIL 26, 2010

DOCKET W-01825A-09-0345

DOCKETED BY

Q. What is Lagoon's response to the customer comments regarding water discoloration and water quality problems?

A. The specific answer regarding the customer comment filed on January 20, 2010, sent to Jenny Gomez at the Corporation Commission on 1/29/1010, is attached. As a standard practice if there is any water quality complaints a Work Order is generated to dispatch to field service technician. Technician responds personally with customer to review compliant and record information. Based on information given the technician is able to troubleshoot where the problem is and correct if on utility side or assist customer with what to do on their side of meter. We work out the problem until corrected and educate our customers about how the utility operates. Encouraging feedback from them.

Q. How frequently do Lagoon's water systems experience water discoloration?

A. Typically, infrequent because of proper chlorination and regular flushing of main lines and in one water system the flushing of individual service lines twice a year.

Q. What is Lagoon's explanation for any water discoloration?

A. Iron and manganese levels in ground water.

Q. Has Lagoon tested the discolored water to ensure that it complies with ADEQ maximum contaminant level standards?

A. Lagoon is part of the ADEQ Monitoring Assistance Program. Out last test year was in 2009. Enclosed is our CCR.

We have not tested a discolored sample of water, because we are always able to resolve the problem upon responding to a customer complaint. A discolored sample of water, typically a light tea discoloration, is due to iron that coats the inside diameter of the pipe over time and is being flushed through the line.

Q. What has Lagoon done to remedy any water discoloration issues on its system?

A. Implemented and for several years now routinely flushing mains. Replacing steel column pipe with pvc. Storage tank cleaning and maintenance.

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Q. How frequently has Lagoon had water service interruptions on its systems from January 1, 2008 to present?

A. Occurrences, *with not all of them located in the same service area*, approximately 20.

Q. What is Lagoon's explanation for any such water service interruptions?

A. A Water service interruption can be defined as anything from a single service line break (frequently due to customer tampering with utility service at the meter) affecting either a single service customer or up to 30 service customers, to a main line break or maintenance repair requiring a partial shutdown of a street, affecting up to 30 service connections. A Service interruption can be isolated affecting only a small section of a street or road if it is a main line repair or maintenance work because all our valves are in good operating condition due to an annual valve exercising and replacement program.

Q. Why did Lagoon irrigate a local youth sports field at no charge during the TY?

A. The field was the local high school in our area. It was done as a charitable contribution. The school services Lewco's customer's children. At the time the High School had completely re-landscaped their sports fields and was in the process of putting in a new watering system and was having problems with their well that typically provided irrigation. So Lewco provided it until they were back up and running so the new landscape did not perish.

Q. Which of Lagoon's water systems irrigated the sports field?

A. 86-021

Q. Is the sports field associated with a Lagoon customer account?

A. Yes is it the Colorado River Union High School

Q. If so, how much would have been charged to the account for irrigation water provided during the TY if Lagoon had used its tariff rates for the applicable meter size for the irrigation water?

A. Approximately \$3,978

Q. How does Lagoon typically provide irrigation water to its customers?

A. We do not typically provide irrigation

Q. How does Lagoon typically bill for irrigation water provided to its customers?

A. We do not typically provide irrigation

Q. Does Lagoon desire to have an approved irrigation rate?

A. No

Q. What is Lagoon's explanation for the excessive water loss experienced by its smaller system during the TY?

A. Replaced both flow meters. Since replacements have been made, the monthly water reconciliation reports have balanced.

Q. What is Lagoon's current practice regarding construction water:

A. Requiring an application and deposit (cover the cost of damage or loss of construction meter) on meter prior to service approval.

Q. How much does Lagoon currently provide construction water through unassigned standpipes used by multiple customers, through assigned meters used by one customer each, or through both unassigned standpipes and assigned construction meters?

A. Part One. One meter connected at all times to Jones head supplying water to standpipe and beginning and ending reads are taken by utility if there were to be multiple customers. Currently we have only one customer utilizing this standpipe. There is only one Jones head and standpipe for this purpose.

Part Two. Lagoon has three construction meters. One is being use on the above mentioned standpipe and the other two are currently in shop inventory. We require the return of the construction meter after use – typically 1-3 days. We have not had a customer requiring long term need for the construction meters to date. All meters are 2 1/2 "connections

Q. How does Lagoon bill for construction and standpipe water?

A. Reading are taken when meter checked out and checked in. Then billed out.

Memo

To: Jenny Gomez
From: Terry Gemar
CC: Stan Miller, Karen Brereton
Date: 1/29/2010
Re: Lagoon Estates Water Co., Inquiry No. 2010 84357

In response to the water quality complaint at 2156 Hackamore, Mohave Valley, Arizona:

Karen Brereton, our system operator, made contact with Mrs. Valentine to address her complaint of water quality at her home. She was unaware that we would receive a copy of the complaint. She was advised that because of the severity of the complaint we had to be notified.

We researched her customer history and found that they had not made a single call to our company regarding water quality. Our operator advised her of this and explained to her that the water quality is very important to the company and we go above and beyond to address any complaint that we receive regarding water quality. The customer was advised that if she had quality issues she should contact the office so that the problem can be corrected. Our operator checked the water and there were no issues at the time.

Our customers are provided with a copy of the consumer confidence report which addresses the quality of the water. The customer questioned the validity of the report and asked that an independent lab perform the testing. We advised her that all testing was done by an independent lab already and that the State of Arizona and our system operator submit all of their samples to an independent lab.

The line repair was discussed with her. A water line was broken by a crew we had cleaning up meter boxes after a repair. This was a one time thing. They crew was not carless and are not constantly damaging the lines. In this case, customers were out of water for about 2 hours while it was fixed, not days.

The customer was advised of the size of our company and that we had less than 400 customers and that we only had one full time field employee and one fulltime office employee. We advised her that the water company had not had an increase in our rates for over 5 years.

The customer was upset because of the requested rate increase and because they had not seen an improvement in the water quality since they had lived there. Lagoon Estates Water Company provides excellent customer service. We only have one or two calls a month regarding water quality and they are normally from our Unit 2 area, which is not on the same system as this customer. We are not familiar with any complaints from the customer's neighbors who have to regularly replace faucets, showers, hose bids and toilets.

The system operator has operated the utility since 1993, over 17 years, and lives in the area, she is very familiar with the water in the area and the problems related water quality. The conversation ended on a very positive note. The customer did not realize how accessible the system operation was to address any issues related to her service. She understood that if she had any concerns she should contact our office. To reiterate Lagoon Estates Water Company address all water quality complaints serious and promptly.

LAGOON ESTATES WATER CO.
2600 N. 44TH STREET, STE 203
PHOENIX, AZ 85008
602-275-0211/602-275-8742 (FAX)

To: Jenny Gomez

From: TERRY GEMAR

Fax: 520-628-6559

Pages: 3

Phone:

Date: 1/29/2010

Re: 2010 84357

CC:

☐ Urgent

☐ For Review

☐ Please Comment

☐ Please Reply

☐ Please Recycle

● Comments

Jenny, here is a copy an answer to the complaint filed by one of our customers. It took us a few days to make contact with the customer.

2009 Annual Drinking Water Quality Report For

Public Water System Name: LAGOON ESTATES WATER COMPANY

Public Water System Number: AZ04 PWS #08-046

Esta es información importante. Si no la pueden leer, necesitan que alguien se la traduzca.

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water.

General Information About Drinking Water

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV-AIDS or other immune system disorders, some elderly, and infants can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA Safe Drinking Water Hotline at 1-800-426-4791.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides** that may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of

industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.

- **Radioactive contaminants**, that can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Arizona Department of Environmental Quality prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water.

Our Water Source(s)

The system's sources of water are listed below.

Township 17N; Range 22W; Section 35;
Unit 2; Vista Drive
ADWR # 55-618836/55-618837

If we used purchased water, this report is required to include water quality data for the purchased water with this report.

Source Water Assessments on file with the Arizona Department of Environmental Quality are available for public review. If a Source Water Assessment is available, you may obtain a copy of it by contacting the Arizona Source Water Coordinator at (602) 771-4641.

Potential sources of contamination in our source water area come from: Low Risk Designation

The Source Water Assessment Report provides a screening-level evaluation of potential contamination that **could** occur. It does not mean that the contamination **has or will** occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure that quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan.

Please contact Karen Brereton at (928) 768-9646 to learn more about what you can do to help protect your drinking water sources, any questions about the annual drinking water quality report, to learn more about our system,

or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

Terms and Abbreviations

To help you understand the terms and abbreviations used in this report, we have provided the following definitions:

- **Parts per million (ppm) or Milligrams per liter (mg/L)** - one part per million corresponds to one minute in two years or a single penny in \$10,000.
- **Parts per billion (ppb) or Micrograms per liter (µg/L)** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Parts per trillion (ppt) or Nanograms per liter (nanograms/L)** - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- **Parts per quadrillion (ppq) or Picograms per liter (picograms/L)** - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
- **Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.
- **Nephelometric Turbidity Unit (NTU)** - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **Action Level (AL)** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Action Level Goal (ALG)** - The "Goal" is the level of a

contaminant in drinking water below which there is no known or expected risk to health. The ALG allows for a margin of safety.

- **Treatment Technique (TT)** - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- **Maximum Contaminant Level Goal (MCLG)** - The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **Maximum Contaminant Level (MCL)** - The "Maximum Allowed" is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **Maximum Residual Disinfectant Level Goal (MRDLG)**: The level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Maximum Residual Disinfectant Level (MRDL)**: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Running Annual Average (RAA)**: An average of monitoring results for the previous 12 calendar months.

Water Quality Data

We routinely monitor for contaminants in your drinking water according to Federal and State laws. The State of Arizona requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Some of our data, though representative, may be more than one year old.

These tables show the results of our monitoring for the period of January 1 to December 31, 2009 unless otherwise noted.

Microbiological Contaminants

Contaminant	MCL	MCLG	Unit	Result	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Total Coliform Bacteria for Systems that collects >40 samples per month	No more than 5% of monthly samples can be positive	0	Absent or Present				Naturally present in the environment
Total Coliform Bacteria for Systems that collects <40 samples per month	No more than 1 positive monthly sample	0	Absent or Present		No		Naturally present in the environment
Fecal coliform and E. Coli	A routine sample & a repeat sample are total coliform positive, & one is also fecal coliform or E. coli positive	0	Absent or Present		No		Human and animal fecal waste

Turbidity

	TT Requirement	Level Found	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Turbidity	Maximum ____ NTU for any single measurement	Highest single measurement:	N/A	Date:	Soil Runoff
	In any month, at least 95% of samples must be less than ____ NTU	Lowest monthly percentage of samples meeting TT standard for our technology:	N/A	Month:	

Radionuclides

Contaminant	MCL	MCLG	Units	Level Detected & Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Beta/photon emitters	Trigger level=15	0	pCi/l		No	2009	Decay of natural and man-made deposits
Alpha emitters	15	0	pCi/l	7.0±1.3	No	2009	Erosion of natural deposits
Combined radium	5	0	pCi/l	<0.4	No	2009	Erosion of natural deposits
Uranium	30	0	ppb		No	2009	Erosion of natural deposits

Lead and Copper

Contaminant	AL	ALG	Units	90 th Percentile	Number of Sites over AL	Violation (Yes or No)	Sample Date/Year	Likely Source of Contamination
Copper	1.3	1.3	ppm	0.25	10	No	June 2008	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	15	0	ppb	0.002	10	No	June 2008	Corrosion of household plumbing systems, erosion of natural deposits

Disinfectants

	MRDL	MRDLG	Units	Level Detected & Range	Violation (Yes or No)	Sample Date/Year	Source
Chloramines	4	4	ppm		N/A	RAA	Water additive used to control microbes
Chlorine	4	4	ppm		N/A	RAA	Water additive used to control microbes
Chloride dioxide	800	800	ppb		N/A		Water additive used to control microbes

Disinfection Byproducts

Contaminant	MCL	MCLG	Units	Average	Range	Highest RAA	Violation (Yes or No)	Sample Date/Year	Likely Source of Contamination
Haloacetic Acids (HAA)	80	N/A	ppb				N/A		By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	60	N/A	ppb				N/A		By-product of drinking water disinfection
Bromates	10	0	ppb				N/A	RAA	By-product of drinking water disinfection
Chlorite	1	0.8	ppm				N/A	RAA	By-product of drinking water disinfection

Total Organic Carbon

Contaminant	Compliance Factor (measurements should not be lower than this factor)	Lowest Running Annual Average (compliance factor)	Running Annual Average Range for the Year (compliance factor)	Violation (Yes or No)	Sample Date/Year	Likely Source of Contamination
Total Organic Carbon (TOC)	1.0			N/A		Naturally present in the environment

Inorganic Contaminants

Contaminant	MCL	MCLG	Units	Level Detected/ Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Antimony	6	6	ppb	<0.0012	No	2009	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic * Effective January 23, 2006 the MCL is now 10 ppb.	50*	0	ppb	0.015	No	2009	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Asbestos	7	7	MFL		No	2006	Decay of asbestos cement water mains; erosion of natural deposits
Barium	2	2	ppm	<0.40	No	2009	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium	4	4	ppb	<0.00080 V1	No	2009	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium	5	5	ppb	<0.0010	No	2009	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium	100	100	ppb	<0.020	No	2009	Discharge from steel and pulp mills; erosion of natural deposits
Cyanide	200	200	ppb	<0.040	No	2009	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	4	4	ppm	<0.80	No	2009	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (inorganic)	2	2	ppb	<0.00040	No	2009	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nitrate (as Nitrogen)	10	10	ppm	<0.20	No	2009	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen)	1	1	ppm		No	2006	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	50	50	ppb	<0.010	No	2009	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium	2	0.5	ppb	<0.00040	No	2009	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

Synthetic Organic Contaminants, Including Pesticides and Herbicides

Contaminant	MCL	MCLG	Units	Level Detected/ Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
2,4-D	70	70	ppb		No	2006	Runoff from herbicide used on row crops
2,4,5-TP (Silvex)	50	50	ppb		No	2006	Residue of banned herbicide
Acrylamide	TT	0	N/A		No	2006	Added to water during sewage/wastewater treatment
Alachlor	2	0	ppb		No	2006	Runoff from herbicide used on row crops
Atrazine	3	3	ppb		No	2006	Runoff from herbicide used on row crops
Benzo (a) pyrene (PAH)	200	0	ppt		No	2006	Leaching from linings of water storage tanks and distribution lines
Carbofuran	40	40	ppb		No	2006	Leaching of soil fumigant used on rice and alfalfa
Chlordane	2	0	ppb		No	2006	Residue of banned termiticide
Dalapon	200	200	ppb		No	2006	Runoff from herbicide used on rights of way
Di (2-ethylhexyl) adipate	400	400	ppb		No	2006	Discharge from chemical factories
Di (2-ethylhexyl) phthalate	6	0	ppb		No	2006	Discharge from rubber and chemical factories
Dibromochloropropane	200	0	ppt		No	2006	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb	7	7	ppb		No	2006	Runoff from herbicide used on soybeans and vegetables
Diquat	20	20	ppb		No	2006	Runoff from herbicide use
Dioxin [2,3,7,8-TCDD]	30	0	ppq		No	2006	Emissions from waste incineration and other combustion; discharge from chemical factories
Endothall	100	100	ppb		No	2006	Runoff from herbicide use
Endrin	2	2	ppb		No	2006	Residue of banned insecticide
Epichlorohydrin	TT	0	N/A		No	2006	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide	50	0	ppt		No	2006	Discharge from petroleum refineries
Glyphosate	700	700	ppb		No	2006	Runoff from herbicide use
Heptachlor	400	0	ppt		No	2006	Residue of banned termiticide
Heptachlor epoxide	200	0	ppt		No	2006	Breakdown of heptachlor
Hexachlorobenzene	1	0	ppb		No	2006	Discharge from metal refineries and agricultural chemical factories

Contaminant	MCL	MCLG	Units	Level Detected/ Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Hexachlorocyclopentadiene	50	50	ppb		No	2006	Discharge from chemical factories
Lindane	200	200	ppt		No	2006	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor	40	40	ppb		No	2006	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl [Vydate]	200	200	ppb		No	2006	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
PCBs [Polychlorinated biphenyls]	500	0	ppt		No	2006	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol	1	0	ppb		No	2006	Discharge from wood preserving factories
Picloram	500	500	ppb		No	2006	Herbicide runoff
Simazine	4	4	ppb		No	2006	Herbicide runoff
Toxaphene	3	0	ppb		No	2006	Runoff/leaching from insecticide used on cotton and cattle

Volatile Organic Contaminants

Contaminant	MCL	MCLG	Units	Level Detected/ Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Benzene	5	0	ppb		No	2006	Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride	5	0	ppb		No	2006	Discharge from chemical plants and other industrial activities
Chlorobenzene	100	100	ppb		No	2006	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene	600	600	ppb		No	2006	Discharge from industrial chemical factories
p-Dichlorobenzene	75	75	ppb		No	2006	Discharge from industrial chemical factories
1,2-Dichloroethane	5	0	ppb		No	2006	Discharge from industrial chemical factories
1,1-Dichloroethylene	7	7	ppb		No	2006	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene	70	70	ppb		No	2006	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene	100	100	ppb		No	2006	Discharge from industrial chemical factories
Dichloromethane	5	0	ppb		No	2006	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane	5	0	ppb		No	2006	Discharge from industrial chemical factories
Ethylbenzene	700	700	ppb		No	2006	Discharge from petroleum refineries
Styrene	100	100	ppb		No	2006	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene	5	0	ppb		No	2006	Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene	70	70	ppb		No	2006	Discharge from textile-finishing factories
1,1,1-Trichloroethane	200	200	ppb		No	2006	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane	5	3	ppb		No	2006	Discharge from industrial chemical factories
Trichloroethylene	5	0	ppb		No	2006	Discharge from metal degreasing sites and other factories
Toluene	1	1	ppm		No	2006	Discharge from petroleum factories
Vinyl Chloride	2	0	ppb		No	2006	Leaching from PVC piping; discharge from chemical factories
Xylenes	10	10	ppm		No	2006	Discharge from petroleum factories; discharge from chemical factories

Unregulated Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Contaminant	MCL	MCLG	Units	Level Detected/ Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
	N/A	N/A			N/A		
	N/A	N/A			N/A		
	N/A	N/A			N/A		

Secondary Contaminants

Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects or aesthetic effects in drinking water. EPA recommends these standards but does not require water systems to comply.

Contaminant	Secondary Standard	MCLG	Units	Level Detected/Range	Violation (Yes or No)	Sample Date	Likely Source
Aluminum	0.05 to 0.2	N/A	ppm		N/A		
Color	15	N/A	color units		N/A		
Corrosivity	noncorrosive	N/A	N/A		N/A		
Foaming Agents	0.5	N/A	ppm		N/A		
Iron	0.3	N/A	ppm	0.53	N/A	Mar 2010	
Manganese	0.05	N/A	ppm	0.96	N/A	Mar 2010	
Odor	3	N/A	threshold odor number		N/A		
pH	6.5 – 8.5	N/A	ppm	7.9	N/A	June 2006	
Silver	0.10	N/A	ppm		N/A		
Sodium	N/A	N/A	ppm	11	N/A	Sept 2009	
Sulfate	250	N/A	ppm	640	N/A	Mar 2010	
Total Dissolved Solids	500	N/A	ppm	1600	N/A	Mar 2010	
Zinc	5	N/A	ppm		N/A		

Health Effects Information About the Above Tables

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods-of-time because of rainfall or agricultural activity. If you are caring for an infant, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

If **arsenic** is less than the MCL, your drinking water meets EPA's standards. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Infants and young children are typically more vulnerable to **lead** in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

Violations

The following violations were received by our water system or were ongoing in the calendar year 2009

Type/Description	Compliance Period
Arsenic – Annual Average required for 2010 Due to 2009 MCL 0.010 ppm exceedence	
March 2010 Result 0.011ppm	

An explanation of the violation(s) in the above table, the steps taken to resolve the violation(s) and any required health effects information are required to be included with this report. (attach copy of Public Notice if available)

2009 Annual Drinking Water Quality Report For

Public Water System Name: LAGOON ESTATES WATER COMPANY

Public Water System Number: AZ04 PWS #08-021

Esta es información importante. Si no la pueden leer, necesitan que alguien se la traduzca.

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water.

General Information About Drinking Water

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV-AIDS or other immune system disorders, some elderly, and infants can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA Safe Drinking Water Hotline at 1-800-426-4791.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides** that may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of

industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff, and septic systems.

- **Radioactive contaminants**, that can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Arizona Department of Environmental Quality prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water.

Our Water Source(s)

The system's sources of water are listed below.

Township 17N; Range 22W; Section 01;
Unit 7; Aquarius Drive
ADWR # 55-536722

If we used purchased water, this report is required to include water quality data for the purchased water with this report.

Source Water Assessments on file with the Arizona Department of Environmental Quality are available for public review. If a Source Water Assessment is available, you may obtain a copy of it by contacting the Arizona Source Water Coordinator at (602) 771-4641.

Potential sources of contamination in our source water area come from: Low Risk Designation

The Source Water Assessment Report provides a screening-level evaluation of potential contamination that **could** occur. It does not mean that the contamination **has or will** occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure that quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan.

Please contact Karen Brereton at (928) 768-9646 to learn more about what you can do to help protect your drinking water sources, any questions about the annual drinking water quality report, to learn more about our system,

or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

Terms and Abbreviations

To help you understand the terms and abbreviations used in this report, we have provided the following definitions:

- **Parts per million (ppm) or Milligrams per liter (mg/L)** - one part per million corresponds to one minute in two years or a single penny in \$10,000.
- **Parts per billion (ppb) or Micrograms per liter (µg/L)** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Parts per trillion (ppt) or Nanograms per liter (nanograms/L)** - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- **Parts per quadrillion (ppq) or Picograms per liter (picograms/L)** - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
- **Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.
- **Nephelometric Turbidity Unit (NTU)** - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **Action Level (AL)** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Action Level Goal (ALG)** - The "Goal" is the level of a

contaminant in drinking water below which there is no known or expected risk to health. The ALG allows for a margin of safety.

- **Treatment Technique (TT)** - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- **Maximum Contaminant Level Goal (MCLG)** - The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **Maximum Contaminant Level (MCL)** - The "Maximum Allowed" is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **Maximum Residual Disinfectant Level Goal (MRDLG)**: The level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Maximum Residual Disinfectant Level (MRDL)**: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Running Annual Average (RAA)**: An average of monitoring results for the previous 12 calendar months.

Water Quality Data

We routinely monitor for contaminants in your drinking water according to Federal and State laws. The State of Arizona requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Some of our data, though representative, may be more than one year old.

These tables show the results of our monitoring for the period of January 1 to December 31, 2009 unless otherwise noted.

Microbiological Contaminants

Contaminant	MCL	MCLG	Unit	Result	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Total Coliform Bacteria for Systems that collects >40 samples per month	No more than 5% of monthly samples can be positive	0	Absent or Present				Naturally present in the environment
Total Coliform Bacteria for Systems that collects <40 samples per month	No more than 1 positive monthly sample	0	Absent or Present	Present	Yes	07/14/09	Naturally present in the environment
Fecal coliform and E. Coli	A routine sample & a repeat sample are total coliform positive, & one is also fecal coliform or <i>E. coli</i> positive	0	Absent or Present		No		Human and animal fecal waste

Turbidity

	TT Requirement	Level Found	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Turbidity	Maximum ____ NTU for any single measurement	Highest single measurement:	N/A	Date:	Soil Runoff
	In any month, at least 95% of samples must be less than ____ NTU	Lowest monthly percentage of samples meeting TT standard for our technology:	N/A	Month:	

Radionuclides

Contaminant	MCL	MCLG	Units	Level Detected & Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Beta/photon emitters	Trigger level=15	0	pCi/l		No	2009	Decay of natural and man-made deposits
Alpha emitters	15	0	pCi/l	1.7± 0.6	No	2009	Erosion of natural deposits
Combined radium	5	0	pCi/l	0.4±0.1	No	2009	Erosion of natural deposits
Uranium	30	0	ppb		No	2009	Erosion of natural deposits

Lead and Copper

Contaminant	AL	ALG	Units	90 th Percentile	Number of Sites over AL	Violation (Yes or No)	Sample Date/Year	Likely Source of Contamination
Copper	1.3	1.3	ppm	0.25	10	No	June 2008	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	15	0	ppb	0.002	10	No	June 2008	Corrosion of household plumbing systems, erosion of natural deposits

Disinfectants

	MRDL	MRDLG	Units	Level Detected & Range	Violation (Yes or No)	Sample Date/Year	Source
Chloramines	4	4	ppm		N/A	RAA	Water additive used to control microbes
Chlorine	4	4	ppm	0.45	NO	RAA	Water additive used to control microbes
Chloride dioxide	800	800	ppb		N/A		Water additive used to control microbes

Disinfection Byproducts

Contaminant	MCL	MCLG	Units	Average	Range	Highest RAA	Violation (Yes or No)	Sample Date/Year	Likely Source of Contamination
Haloacetic Acids (HAA)	80	N/A	ppb	0.0019 ppm	<0.0011 - 0.0022	0.0022	No	2008/2009	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	60	N/A	ppb	0.0052 ppm	<0.00050 - 0.013	0.013	No	2008/2009	By-product of drinking water disinfection
Bromates	10	0	ppb				N/A	RAA	By-product of drinking water disinfection
Chlorite	1	0.8	ppm				N/A	RAA	By-product of drinking water disinfection

Total Organic Carbon

Contaminant	Compliance Factor (measurements should not be lower than this factor)	Lowest Running Annual Average (compliance factor)	Running Annual Average Range for the Year (compliance factor)	Violation (Yes or No)	Sample Date/Year	Likely Source of Contamination
Total Organic Carbon (TOC)	1.0			N/A		Naturally present in the environment

Inorganic Contaminants

Contaminant	MCL	MCLG	Units	Level Detected/ Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Antimony	6	6	ppb		No	2006	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic * Effective January 23, 2006 the MCL is now 10 ppb.	50*	0	ppb	0.004	No	2006	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Asbestos	7	7	MFL		No	2006	Decay of asbestos cement water mains; erosion of natural deposits
Barium	2	2	ppm	0.055	No	2006	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium	4	4	ppb		No	2006	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium	5	5	ppb		No	2006	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium	100	100	ppb	0.0010	No	2006	Discharge from steel and pulp mills; erosion of natural deposits
Cyanide	200	200	ppb	0.0071	No	2006	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	4	4	ppm	0.24	No	2006	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (inorganic)	2	2	ppb		No	2006	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nitrate (as Nitrogen)	10	10	ppm	<0.20	No	2006	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen)	1	1	ppm		No	2006	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	50	50	ppb		No	2006	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium	2	0.5	ppb		No	2006	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

Synthetic Organic Contaminants, Including Pesticides and Herbicides

Contaminant	MCL	MCLG	Units	Level Detected/ Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
2,4-D	70	70	ppb		No	2006	Runoff from herbicide used on row crops
2,4,5-TP (Silvex)	50	50	ppb		No	2006	Residue of banned herbicide
Acrylamide	TT	0	N/A		No	2006	Added to water during sewage/wastewater treatment
Alachlor	2	0	ppb		No	2006	Runoff from herbicide used on row crops
Atrazine	3	3	ppb		No	2006	Runoff from herbicide used on row crops
Benzo (a) pyrene (PAH)	200	0	ppt		No	2006	Leaching from linings of water storage tanks and distribution lines
Carbofuran	40	40	ppb		No	2006	Leaching of soil fumigant used on rice and alfalfa
Chlordane	2	0	ppb		No	2006	Residue of banned termiticide
Dalapon	200	200	ppb		No	2006	Runoff from herbicide used on rights of way
Di (2-ethylhexyl) adipate	400	400	ppb		No	2006	Discharge from chemical factories
Di (2-ethylhexyl) phthalate	6	0	ppb		No	2006	Discharge from rubber and chemical factories
Dibromochloropropane	200	0	ppt		No	2006	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb	7	7	ppb		No	2006	Runoff from herbicide used on soybeans and vegetables
Diquat	20	20	ppb		No	2006	Runoff from herbicide use
Dioxin [2,3,7,8-TCDD]	30	0	ppq		No	2006	Emissions from waste incineration and other combustion; discharge from chemical factories
Endothall	100	100	ppb		No	2006	Runoff from herbicide use
Endrin	2	2	ppb		No	2006	Residue of banned insecticide
Epichlorohydrin	TT	0	N/A		No	2006	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide	50	0	ppt		No	2006	Discharge from petroleum refineries
Glyphosate	700	700	ppb		No	2006	Runoff from herbicide use
Heptachlor	400	0	ppt		No	2006	Residue of banned temiticide
Heptachlor epoxide	200	0	ppt		No	2006	Breakdown of heptachlor
Hexachlorobenzene	1	0	ppb		No	2006	Discharge from metal refineries and agricultural chemical factories

Contaminant	MCL	MCLG	Units	Level Detected/ Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Hexachlorocyclo pentadiene	50	50	ppb		No	2006	Discharge from chemical factories
Lindane	200	200	ppt		No	2006	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor	40	40	ppb		No	2006	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl [Vydate]	200	200	ppb		No	2006	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
PCBs [Polychlorinated biphenyls]	500	0	ppt		No	2006	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol	1	0	ppb		No	2006	Discharge from wood preserving factories
Picloram	500	500	ppb		No	2006	Herbicide runoff
Simazine	4	4	ppb		No	2006	Herbicide runoff
Toxaphene	3	0	ppb		No	2006	Runoff/leaching from insecticide used on cotton and cattle

Volatile Organic Contaminants

Contaminant	MCL	MCLG	Units	Level Detected/ Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Benzene	5	0	ppb		No	2006	Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride	5	0	ppb		No	2006	Discharge from chemical plants and other industrial activities
Chlorobenzene	100	100	ppb		No	2006	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene	600	600	ppb		No	2006	Discharge from industrial chemical factories
p-Dichlorobenzene	75	75	ppb		No	2006	Discharge from industrial chemical factories
1,2-Dichloroethane	5	0	ppb		No	2006	Discharge from industrial chemical factories
1,1-Dichloroethylene	7	7	ppb		No	2006	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene	70	70	ppb		No	2006	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene	100	100	ppb		No	2006	Discharge from industrial chemical factories
Dichloromethane	5	0	ppb		No	2006	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane	5	0	ppb		No	2006	Discharge from industrial chemical factories
Ethylbenzene	700	700	ppb		No	2006	Discharge from petroleum refineries
Styrene	100	100	ppb		No	2006	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene	5	0	ppb		No	2006	Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene	70	70	ppb		No	2006	Discharge from textile-finishing factories
1,1,1-Trichloroethane	200	200	ppb		No	2006	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane	5	3	ppb		No	2006	Discharge from industrial chemical factories
Trichloroethylene	5	0	ppb		No	2006	Discharge from metal degreasing sites and other factories
Toluene	1	1	ppm		No	2006	Discharge from petroleum factories
Vinyl Chloride	2	0	ppb		No	2006	Leaching from PVC piping; discharge from chemical factories
Xylenes	10	10	ppm		No	2006	Discharge from petroleum factories; discharge from chemical factories

Unregulated Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Contaminant	MCL	MCLG	Units	Level Detected/ Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
	N/A	N/A			N/A		
	N/A	N/A			N/A		
	N/A	N/A			N/A		

Secondary Contaminants

Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects or aesthetic effects in drinking water. EPA recommends these standards but does not require water systems to comply.

Contaminant	Secondary Standard	MCLG	Units	Level Detected/ Range	Violation (Yes or No)	Sample Date	Likely Source
Aluminum	0.05 to 0.2	N/A	ppm		N/A		
Color	15	N/A	color units		N/A		
Corrosivity	noncorrosive	N/A	N/A		N/A		
Foaming Agents	0.5	N/A	ppm		N/A		
Iron	0.3	N/A	ppm	0.050	N/A	Mar 2010	
Manganese	0.05	N/A	ppm	0.010	N/A	Mar 2010	
Odor	3	N/A	threshold odor number		N/A		
pH	6.5 – 8.5	N/A	ppm	7.8	N/A	Mar 2010	
Silver	0.10	N/A	ppm		N/A		
Sodium	N/A	N/A	ppm	140	N/A	Mar 2010	
Sulfate	250	N/A	ppm	450	N/A	Mar 2010	
Total Dissolved Solids	500	N/A	ppm	1600	N/A	Mar 2010	
Zinc	5	N/A	ppm		N/A		

Health Effects Information About the Above Tables

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods-of-time because of rainfall or agricultural activity. If you are caring for an infant, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

If **arsenic** is less than the MCL, your drinking water meets EPA's standards. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Infants and young children are typically more vulnerable to **lead** in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

Violations

The following violations were received by our water system or were ongoing in the calendar year 2009

Type/Description	Compliance Period
NONE	

An explanation of the violation(s) in the above table, the steps taken to resolve the violation(s) and any required health effects information are required to be included with this report. (attach copy of Public Notice if available)

COMPLIANCE SCHEDULE

<u>CONTAMINATE</u>	<u>TEST YEAR</u>
Lead and Copper	2011
IOCs	2012
SOCs	2015